

§ 214.101

trains on a specific segment of railroad track in accordance with the operating rules of the railroad that apply to that segment of track.

Watchman/lookout means an employee who has been annually trained and qualified to provide warning to roadway workers of approaching trains or on-track equipment. Watchmen/lookouts shall be properly equipped to provide visual and auditory warning such as whistle, air horn, white disk, red flag, lantern, fusee. A watchman/lookout's sole duty is to look out for approaching trains/on-track equipment and provide at least fifteen seconds advanced warning to employees before arrival of trains/on-track equipment.

Working limits means a segment of track with definite boundaries established in accordance with this part upon which trains and engines may move only as authorized by the roadway worker having control over that defined segment of track. Working limits may be established through "exclusive track occupancy," "inaccessible track," "foul time" or "train coordination" as defined herein.

[57 FR 28127, June 24, 1992, as amended at 61 FR 65975, Dec. 16, 1996]

Subpart B—Bridge Worker Safety Standards

§ 214.101 Purpose and scope.

(a) The purpose of this subpart is to prevent accidents and casualties arising from the performance of work on railroad bridges.

(b) This subpart prescribes minimum railroad safety rules for railroad employees performing work on bridges. Each railroad and railroad contractor may prescribe additional or more stringent operating rules, safety rules, and other special instructions not inconsistent with this subpart.

(c) These provisions apply to all railroad employees, railroads, and railroad contractors performing work on railroad bridges.

(d) Any working conditions involving the protection of railroad employees working on railroad bridges not within the subject matter addressed by this chapter, including respiratory protection, hazard communication, hearing

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protection, welding and lead exposure standards, shall be governed by the regulations of the U.S. Department of Labor, Occupational Safety and Health Administration.

§ 214.103 Fall protection, generally.

(a) Except as provided in paragraphs (b) through (d) of this section, when employees work twelve feet or more above the ground or water surface, they shall be provided and shall use a personal fall arrest system or safety net system. All fall protection systems required by this section shall conform to the standards set forth in § 214.105 of this subpart.

(b)(1) This section shall not apply if the installation of the fall arrest system poses a greater exposure to risk than the work to be performed. In any action brought by FRA to enforce the fall protection requirements, the railroad or railroad contractor shall have the burden of proving that the installation of such device poses greater exposure to risk than performance of the work itself.

(2) This section shall not apply to employees engaged in inspection of railroad bridges conducted in full compliance with the following conditions:

(i) The railroad or railroad contractor has a written program in place that requires training in, adherence to, and use of safe procedures associated with climbing techniques and procedures to be used;

(ii) The employee to whom this exception applies has been trained and qualified according to that program to perform bridge inspections, has been previously and voluntarily designated to perform inspections under the provisions of that program, and has accepted the designation;

(iii) The employee to whom this exception applies is familiar with the appropriate climbing techniques associated with all bridge structures the employee is responsible for inspecting;

(iv) The employee to whom this exception applies is engaged solely in moving on or about the bridge or observing, measuring, and recording the dimensions and condition of the bridge and its components; and

(v) The employee to whom this exception applies is provided all equipment

necessary to meet the needs of safety, including any specialized or alternative systems required.

(c) This section shall not apply where employees are working on a railroad bridge equipped with walkways and railings of sufficient height, width, and strength to prevent a fall, provided that the employee does not work beyond the railings, over the side of the bridge, on ladders or other elevation devices, or where gaps or holes exist through which a body could fall. Where used in place of fall protection as provided for in § 214.105, this paragraph (c) is satisfied by:

(1) Walkways and railings meeting the standards set forth in the American Railway Engineering Association's Manual for Railway Engineering; and

(2) Roadways attached to railroad bridges, provided that employees on the roadway deck work or move at a distance of six feet or more from the edge of the roadway deck, or from an opening through which a person could fall.

(d) This section shall not apply where employees are performing repairs or inspections of a minor nature that are completed by working exclusively between the outside rails, including, but not limited to, routine welding, spiking, anchoring, spot surfacing, and joint bolt replacement.

[57 FR 28127, June 24, 1992, as amended at 59 FR 30883, June 16, 1994]

§ 214.105 Fall protection systems standards and practices.

(a) *General requirements.* All fall protection systems required by this subpart shall conform to the following:

(1) Fall protection systems shall be used only for employee fall protection.

(2) Any fall protection system subjected to impact loading shall be immediately and permanently removed from service unless fully inspected and determined by a competent person to be undamaged and suitable for reuse.

(3) All fall protection system components shall be protected from abrasions, corrosion, or any other form of deterioration.

(4) All fall protection system components shall be inspected prior to each use for wear, damage, corrosion, mil-

dew, and other deterioration. Defective components shall be permanently removed from service.

(5) Prior to use and after any component or system is changed, employees shall be trained in the application limits of the equipment, proper hook-up, anchoring and tie-off techniques, methods of use, and proper methods of equipment inspection and storage.

(6) The railroad or railroad contractor shall provide for prompt rescue of employees in the event of a fall.

(7) Connectors shall have a corrosion-resistant finish, and all surfaces and edges shall be smooth to prevent damage to interfacing parts of the system.

(8) Connectors shall be drop forged, pressed or formed steel, or made of equivalent-strength materials.

(9) Anchorages, including single- and double-head anchors, shall be capable of supporting at least 5,000 pounds per employee attached, or shall be designed, installed, and used under the supervision of a qualified person as part of a complete personal fall protection system that maintains a safety factor of at least two.

(b) *Personal fall arrest systems.* All components of a personal fall arrest system shall conform to the following standards:

(1) Lanyards and vertical lifelines that tie off one employee shall have a minimum breaking strength of 5,000 pounds.

(2) Self-retracting lifelines and lanyards that automatically limit free fall distance to two feet or less shall have components capable of sustaining a minimum static tensile load of 3,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.

(3) Self-retracting lifelines and lanyards that do not limit free fall distance to two feet or less, ripstitch, and tearing and deformed lanyards shall be capable of withstanding 5,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.

(4) Horizontal lifelines shall be designed, installed, and used under the supervision of a competent person, as part of a complete personal fall arrest system that maintains a safety factor of at least two.